



5691

HIGH-MU TWIN TRIODE

Intended for critical industrial applications where 10,000-hour life, extreme uniformity, rigid construction, and exceptional stability are paramount. Within its ratings, the 5691 may be used to replace its receiving-tube counterpart, type 6SL7-GT, where heater transformer will carry increased current.

5691
SPECIAL RED
TUBE

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

Voltage. $6.3 \pm 5\%$ * . . . ac or dc volts

Current. 0.6 amp

Direct Interelectrode Capacitances:⁰

	Min.	Av.	Max.	
Triode No.1:				
Grid to Plate.	3.1	3.6	4.1	μf
Grid to Cathode.	1.9	2.4	2.9	μf
Plate to Cathode	1.8	2.3	2.8	μf
Triode No.2:				
Grid to Plate.	3.1	3.6	4.1	μf
Grid to Cathode.	2.2	2.7	3.2	μf
Plate to Cathode	2.1	2.6	3.1	μf
Plate of Triode No.1 to				
Plate of Triode No.2	0.27	0.32	0.37	μf

* May deviate $\pm 10\%$ from rated value provided such deviation occurs for less than 2% of the operating time.

⁰ With no external shield.

Mechanical:

Mounting Position. Any

Maximum Overall Length 2-7/8"

Maximum Seated Length. 2-5/16"

Maximum Diameter 1-9/32"

Bulb T-9

Base Short Intermediate-Shell Octal

8-Pin, Non-Hygroscopic

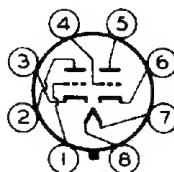
Basing Designation for BOTTOM VIEW 8BD

Pin 1-Grid of
Triode No.2

Pin 2-Plate of
Triode No.2

Pin 3-Cathode of
Triode No.2

Pin 4-Grid of
Triode No.1



Pin 5-Plate of
Triode No.1

Pin 6-Cathode of
Triode No.1

Pin 7-Heater

Pin 8-Heater

(continued on next page)

MAR. 15, 1948

TUBE DEPARTMENT
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

TENTATIVE DATA

5691



5691

HIGH-MU TWIN TRIODE

INDUSTRIAL SERVICE

Includes applications such as dc and audio amplifiers

Values are for each unit

Maximum Ratings, Absolute Values:

DC PLATE VOLTAGE	275 max.	volts
DC PLATE-SUPPLY VOLTAGE	330 max.	volts
GRID VOLTAGE:		
Negative bias range.	1 [•] min. to 100 max.	volts
Negative peak value.	200 max.	volts
DC GRID CURRENT.	2 max.	ma
DC CATHODE CURRENT	10 max.	ma
PLATE DISSIPATION.	1 max.	watt
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode.	100 max.	volts
Heater positive with respect to cathode.	100 max.	volts
AMBIENT TEMPERATURE RANGE.	-55 to +90	°C

• For resistance-coupled amplifier applications, the negative bias may be as low as 0.5 volt.

Maximum Circuit Value (for any operating condition):

Grid-Circuit Resistance.	2 max.	megohms
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Characteristics and Range Values:

Heater Volts, 6.3; Plate Volts, 250; Grid Volts, -2

	<u>Min.</u>	<u>Au.</u>	<u>Max.</u>	
Heater Current	0.55	0.6	0.65	amp
Heater-Cathode Current with heater-cathode voltage of				
± 100 volts.	-	-	5	μamp
Plate Current.	1.7	2.3	2.9	ma
Difference in Plate Current between triode units	-	-	0.9	ma
Plate Current for grid volt- age of -5.5 volts.	-	-	15	μamp
Reverse Grid Current	-	-	0.2	μamp
Amplification Factor	60	70	80	
Plate Resistance	-	44000	-	ohms
Transconductance	1300	1600	1900	μmhos

Typical Operation as Resistance-Coupled Amplifier (Each Unit)

*See RESISTANCE-COUPLED AMPLIFIER CHART No. 7 at front of
Receiving Tube Section.*

MAR. 15, 1948

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TENTATIVE DATA

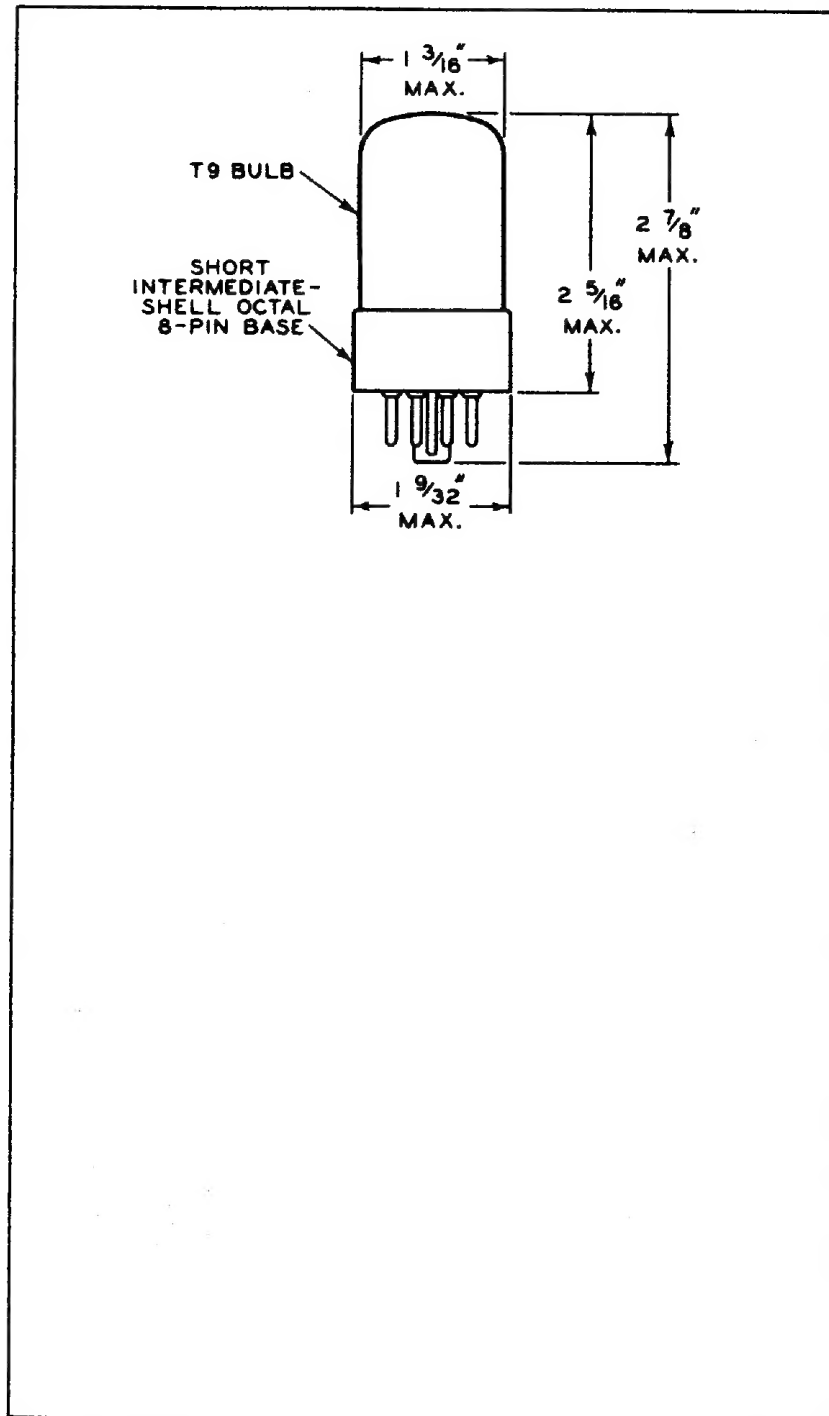
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MAR. 15, 1948

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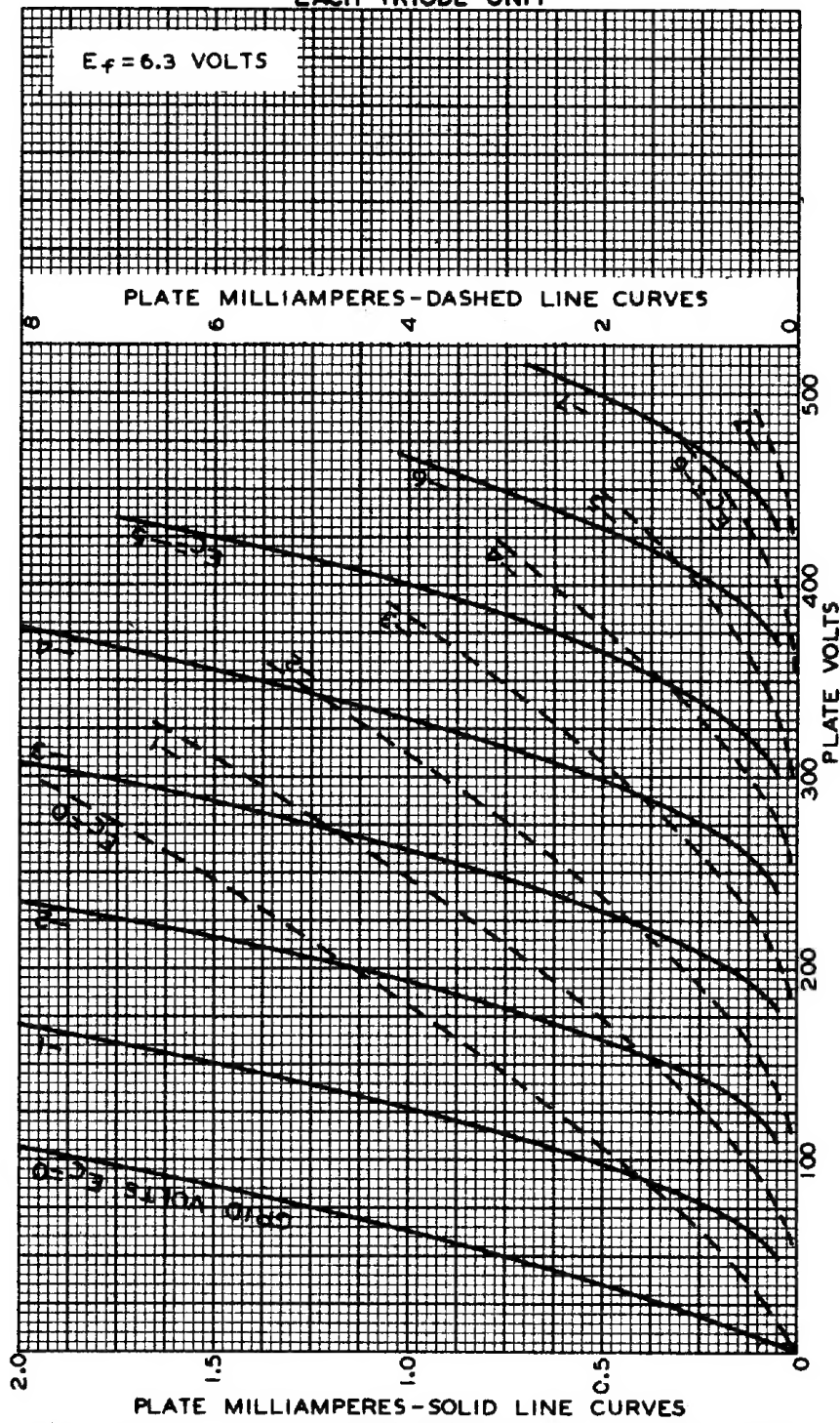
OUTLINE

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AVERAGE PLATE CHARACTERISTICS EACH TRIODE UNIT



JUNE 16, 1941

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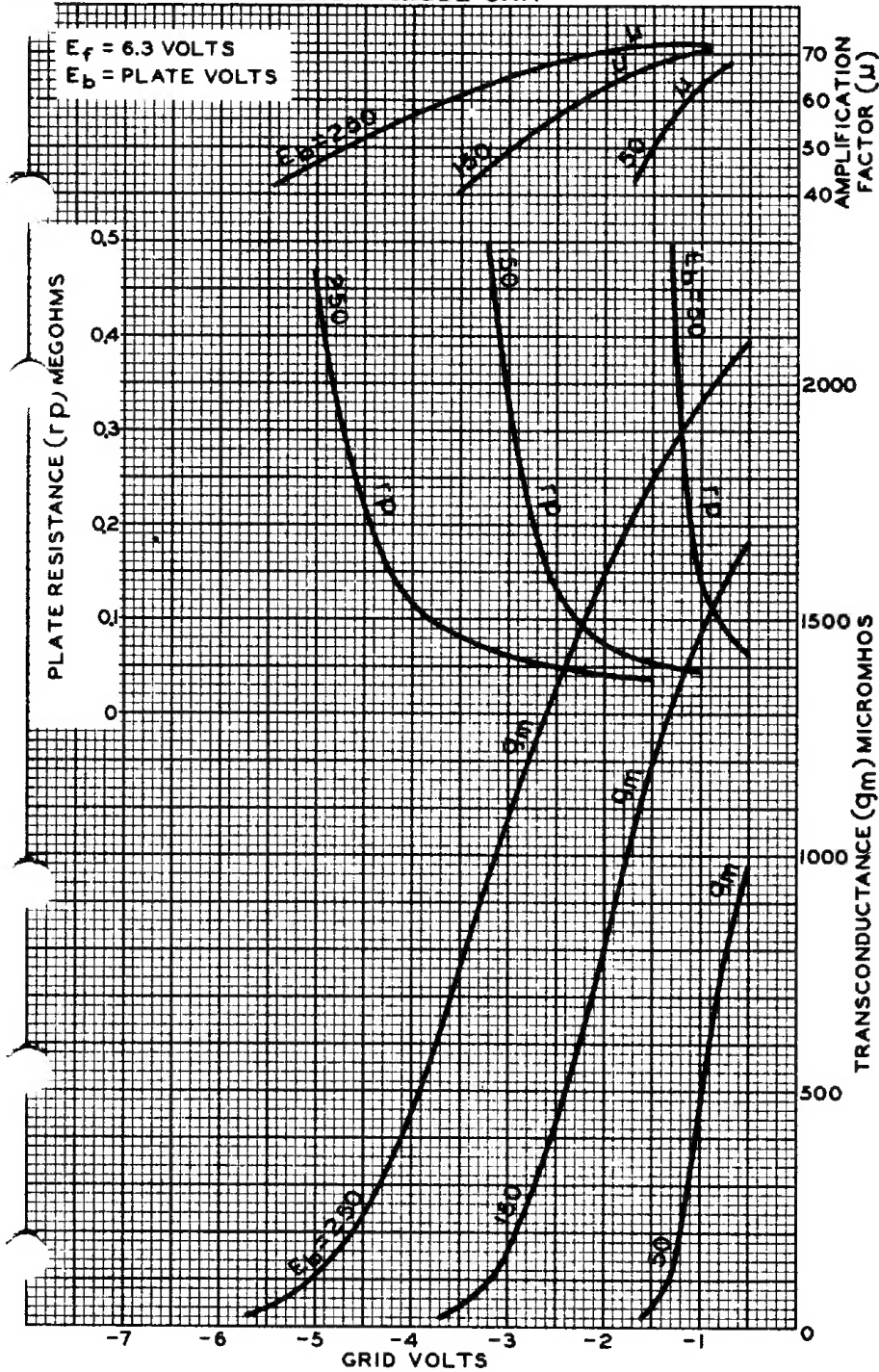
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AVERAGE CHARACTERISTICS EACH TRIODE UNIT



NOV. 21, 1947

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